Maps

Dominant Soil Orders in the United States

Dominant Suborders

Alfisols

Andisols

Aridisols

Entisols

Gelisols

Histosols

Inceptisols

Mollisols

Oxisols

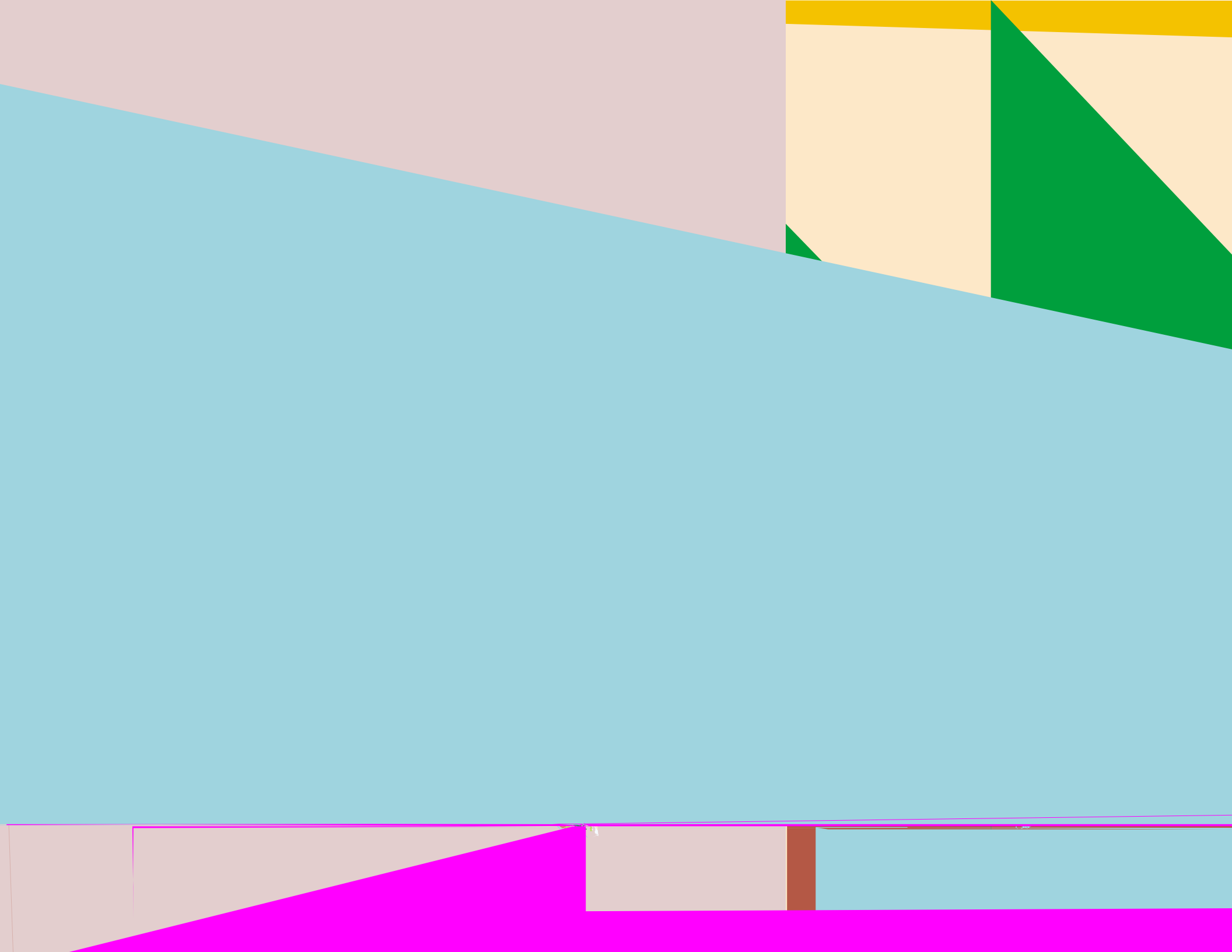
Spodosols

Ultisols

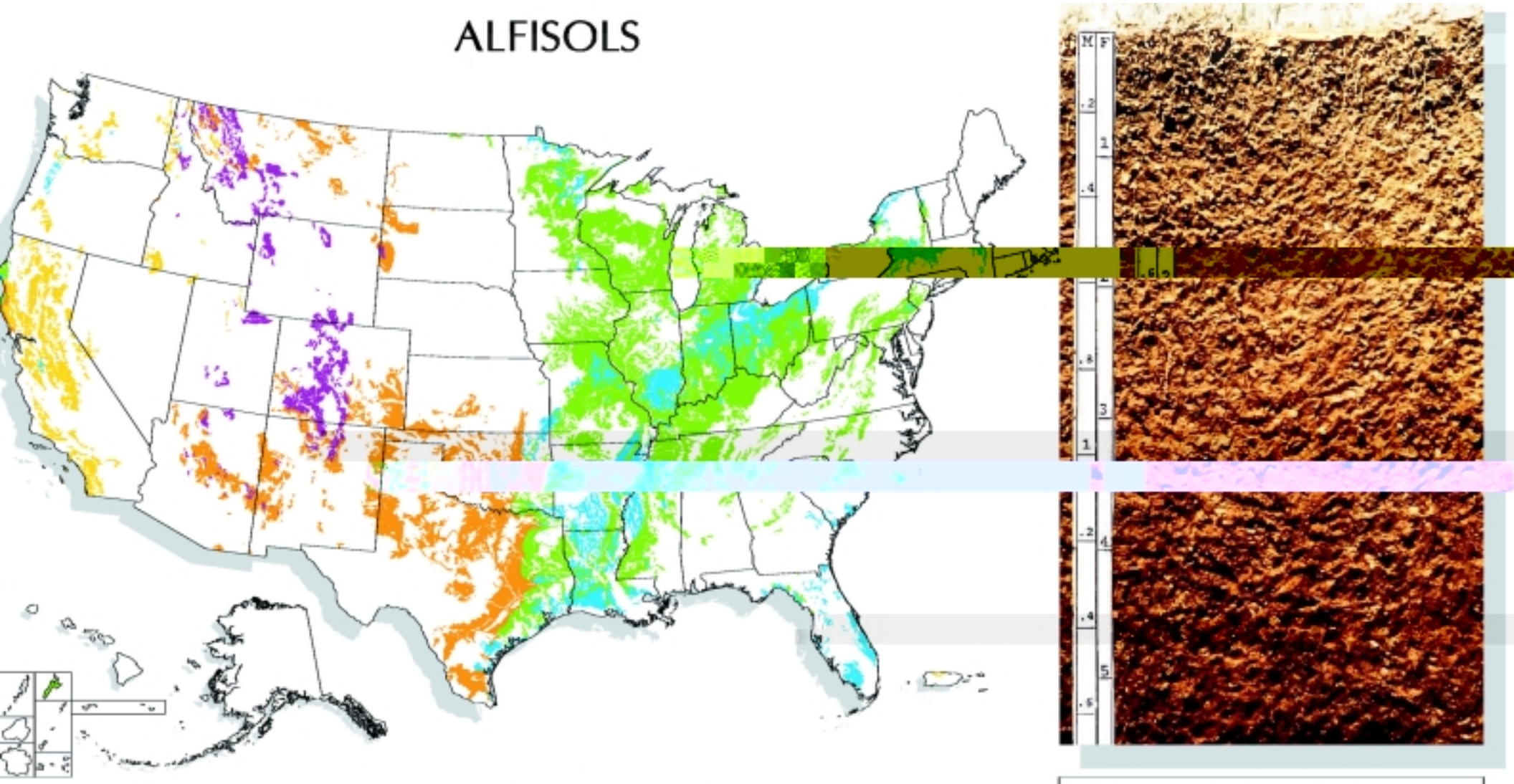
Vertisols

Global Soil Regions (To print this map on 8.5 x 11 inch paper, select File, Print, Fit to Page.)

Click here to go to Table of Contents.



ALFISOLS

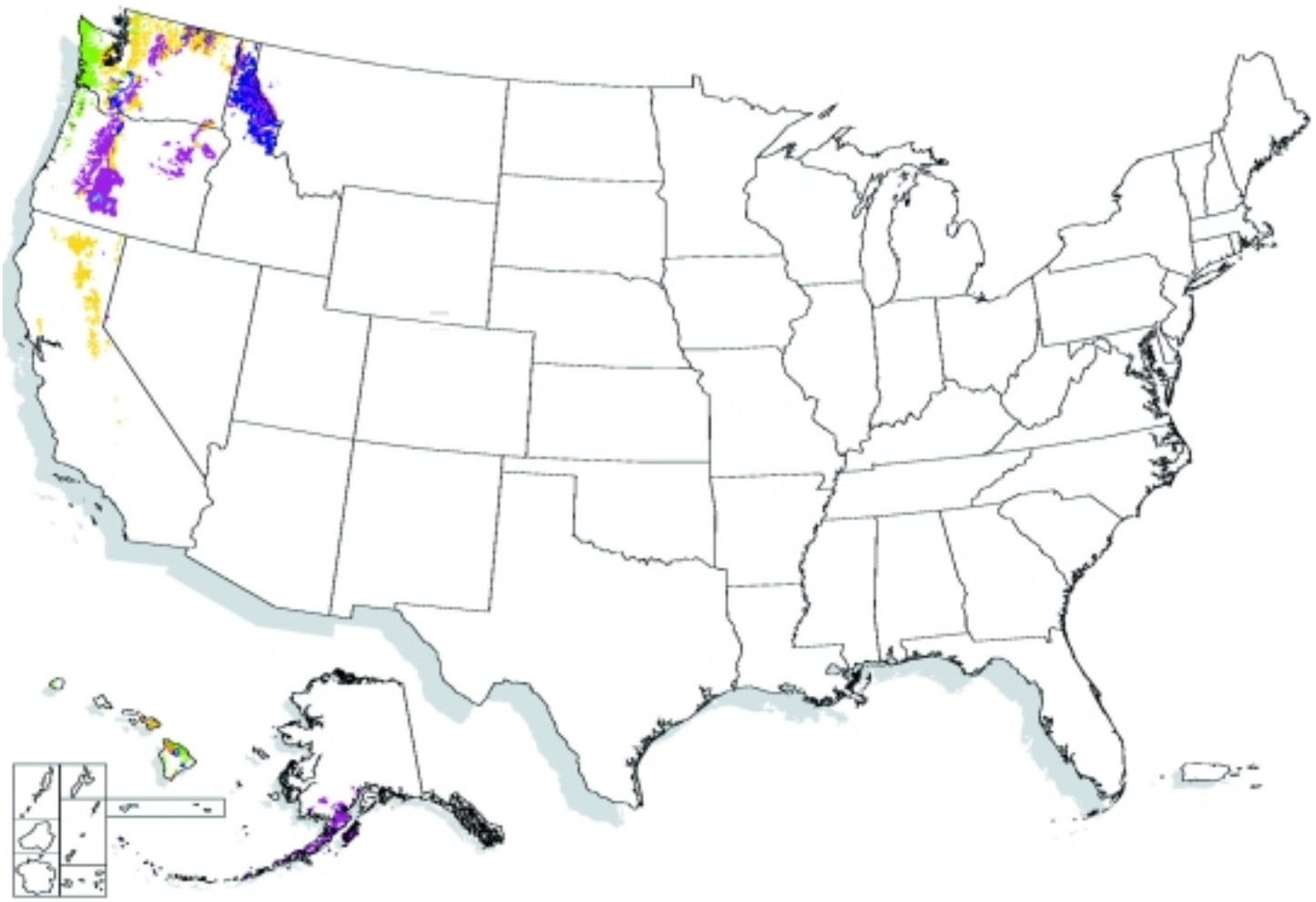


DOMINANT SUBORDERS

- Aqualfs
- Cryalfs
- Udalfs
- Ustalfs
- Xeralfs

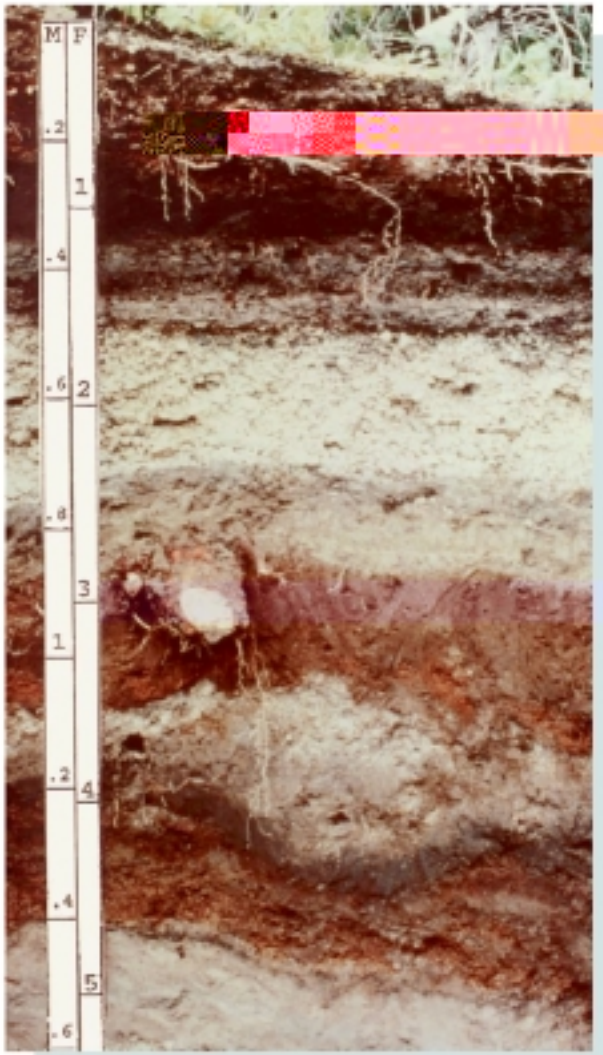
Alfisols have an argillic, kandic, or natric horizon and a relatively high content of bases. They typically have an ochric epipedon. Some also have a duripan, a fragipan, or a petrocalcic horizon. Most formed under forest or savanna vegetation.

ANDISOLS



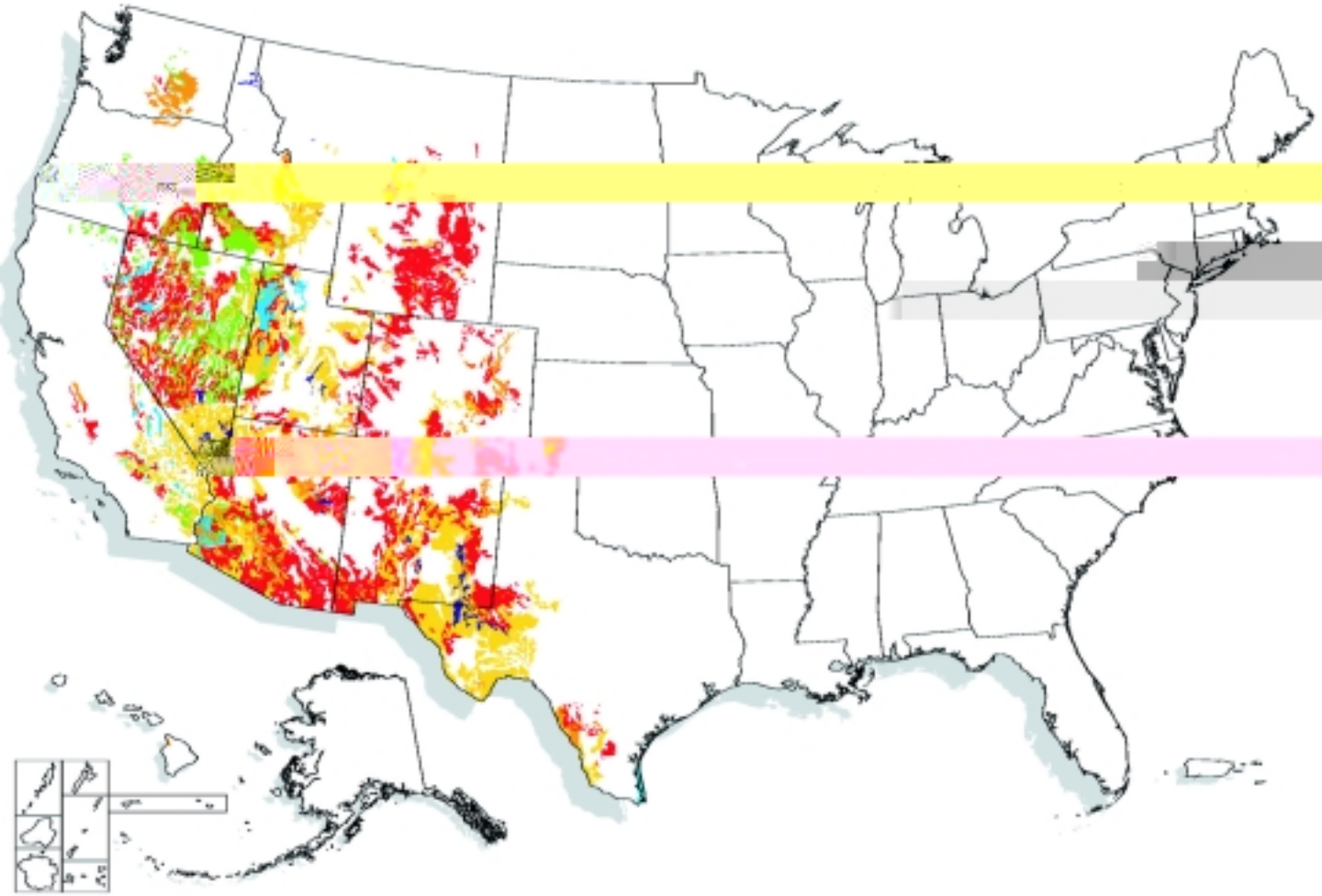
DOMINANT SUBORDERS

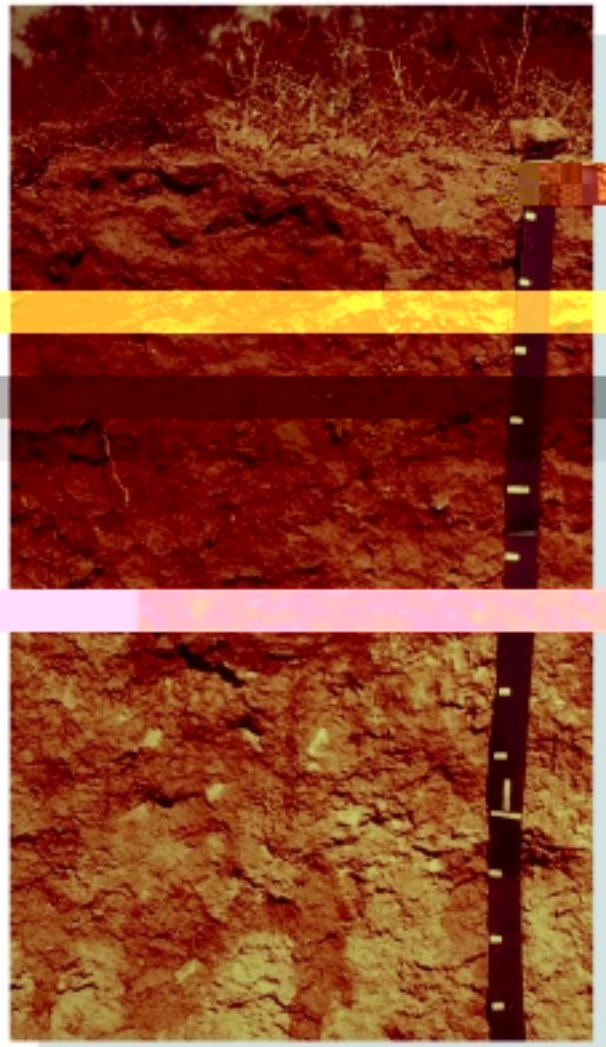
- Aquands
- Udands
- Xerands
- Cryands
- Ustands
- Torrands
- Vitrands



Andisols are dominated by short-range-order minerals or Al-humus complexes, and many have a large content of volcanic materials. The dominant soil-forming process is *in situ* mineral transformation. These soils commonly have a cambic horizon and can have any diagnostic epipedon.

ARIDISOLS



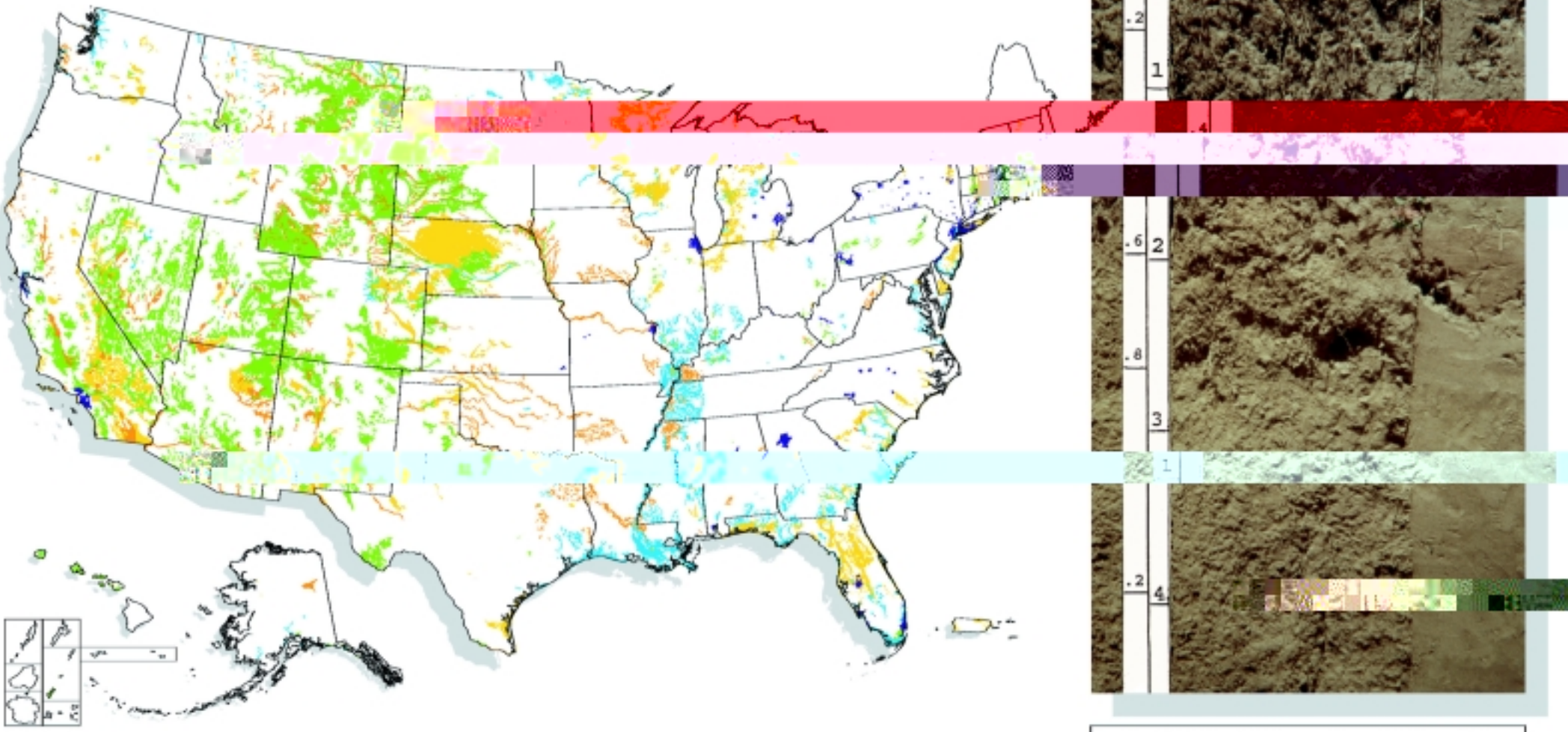


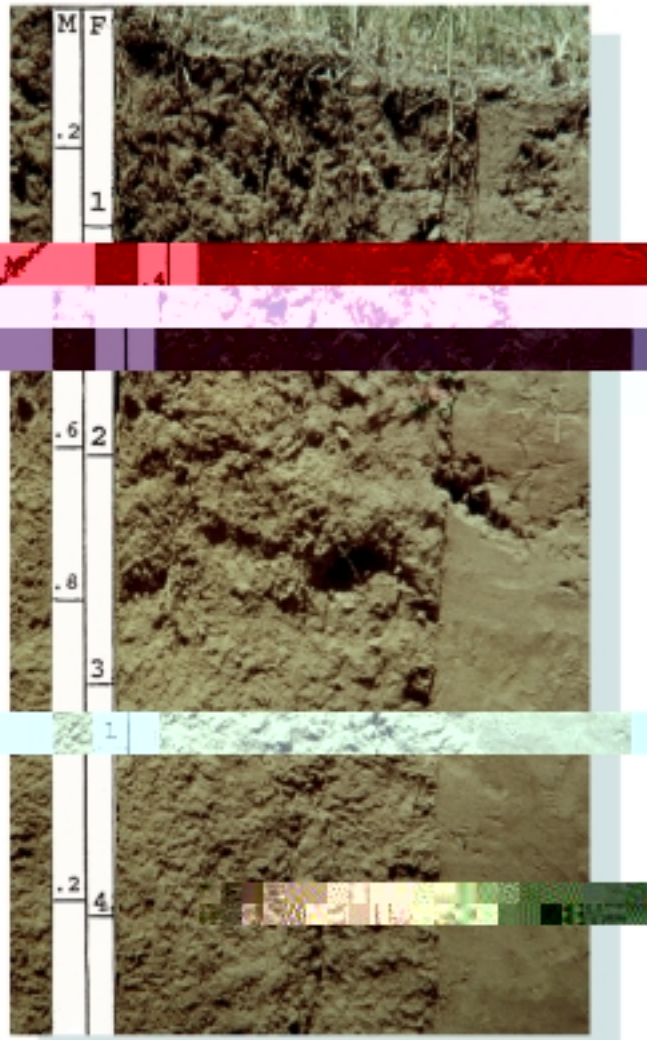
DOMINANT SUBORDERS

- Argids
- Calcids
- Cambids
- Cryids
- Durids
- Gypsids
- Salids

Aridisols have an aridic moisture regime. They also have one or more of the following diagnostic horizons: an argillic, calcic, cambic, gypsic, natric, petrocalcic, petrogypsic, or salic horizon or a duripan. These soils typically have an ochric epipdon.

ENTISOLS



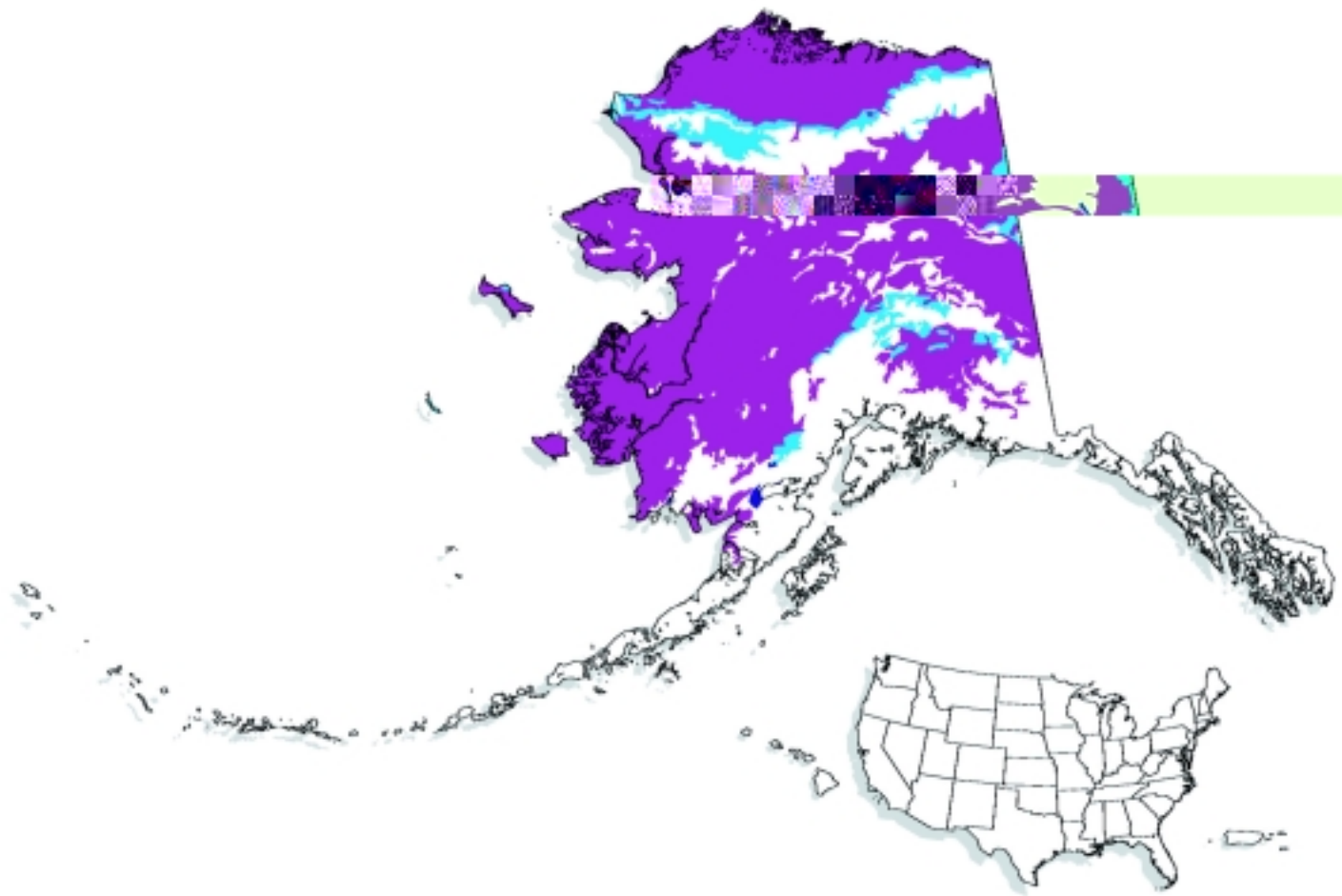


DOMINANT SUBORDERS

- Aquents
- Orthents
- Arents
- Psamments
- Fluvents

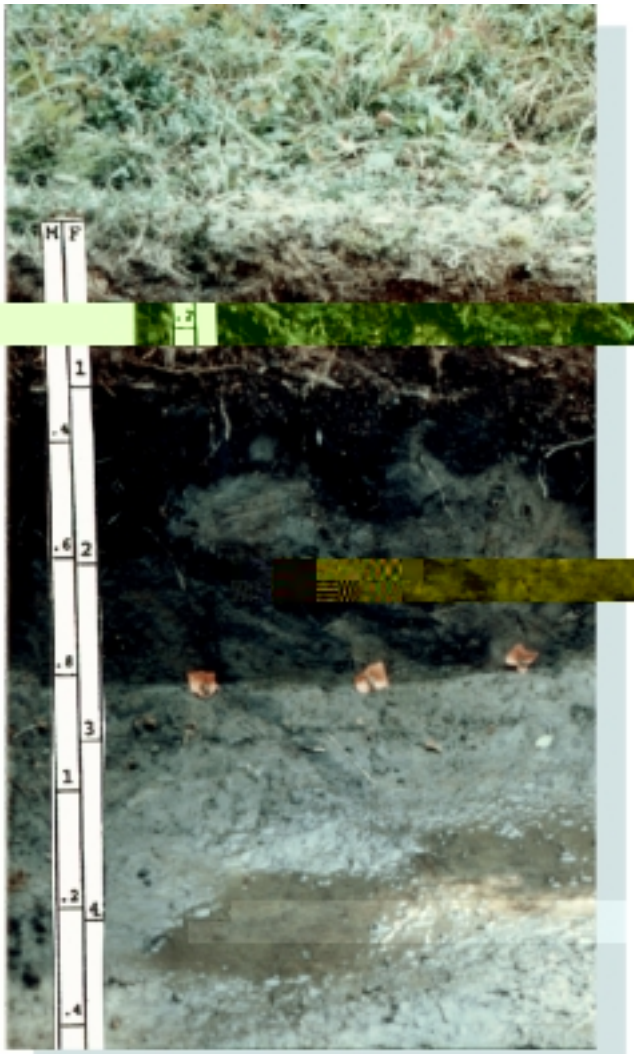
Entisols have little or no evidence of the development of diagnostic horizons. Many have an ochric epipedon. Many are sandy or very shallow.

GELISOLS



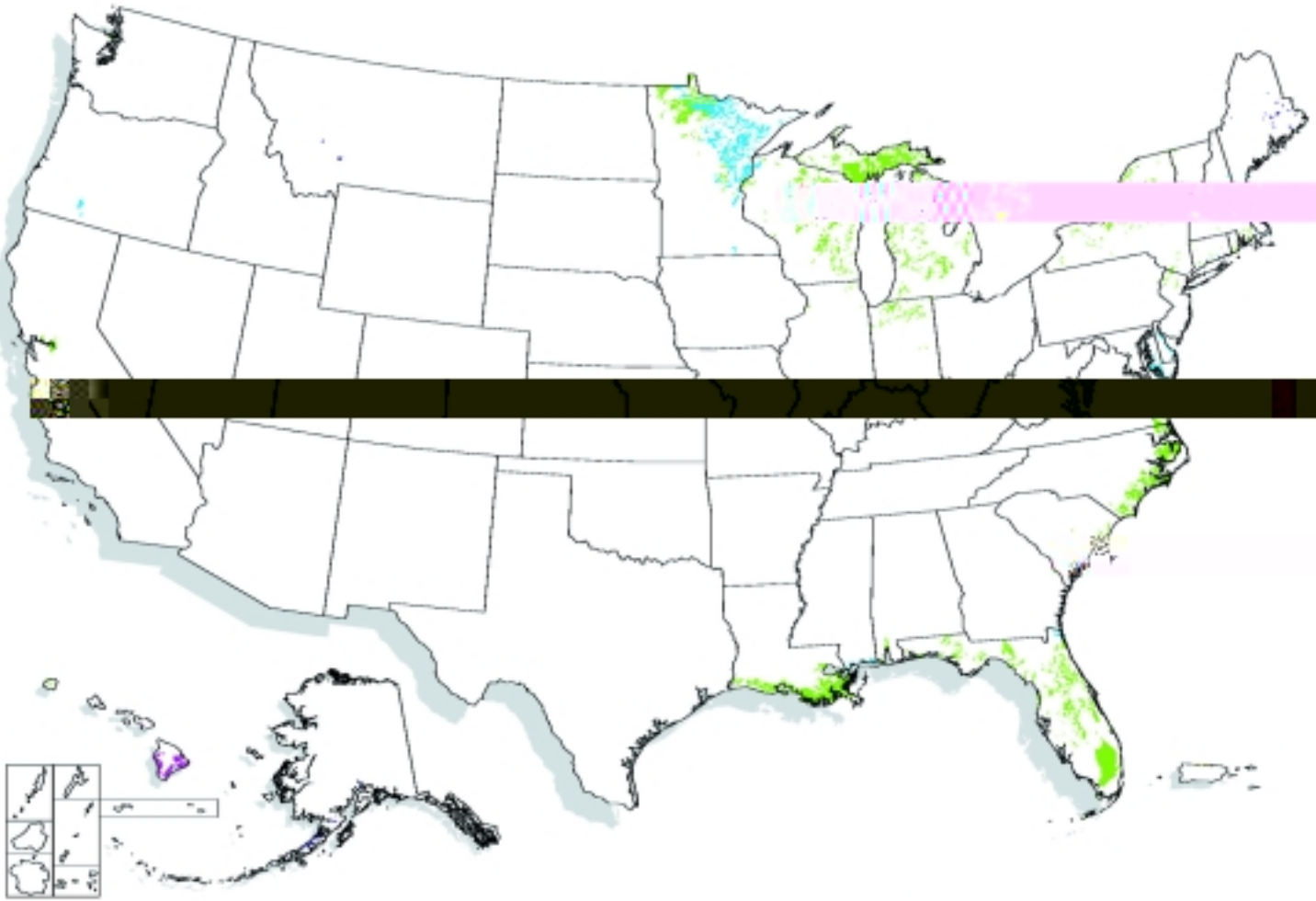
DOMINANT SUBORDERS

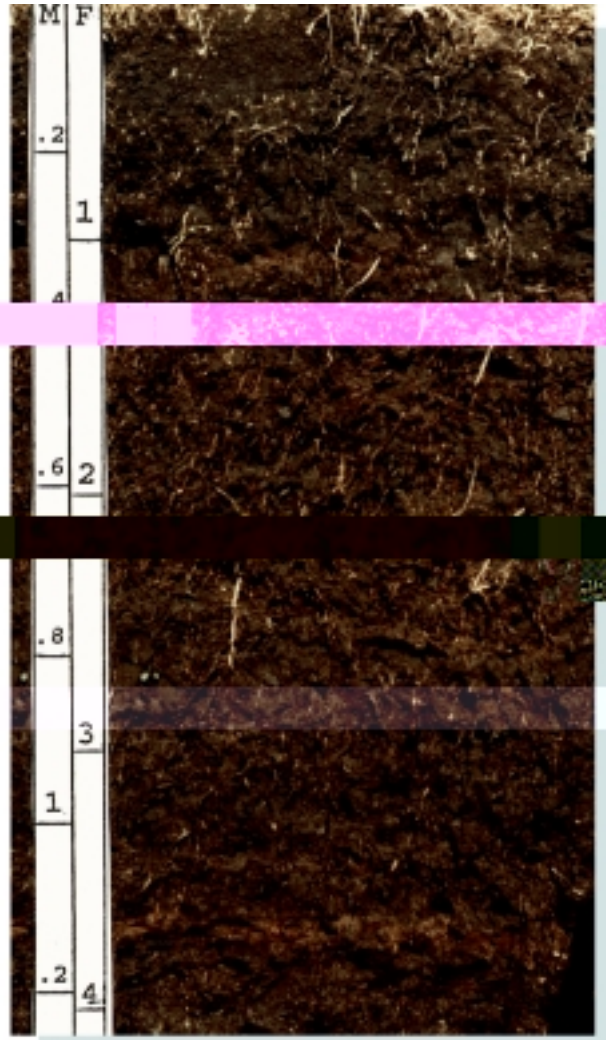
- Histels
- Orthels
- Turbels



Gelisols have permafrost, and many are cryoturbated. These soils consist of mineral or organic soil materials, or both. They commonly have layers of gelic materials and a histic or ochric epipedon.

HISTOSOLS

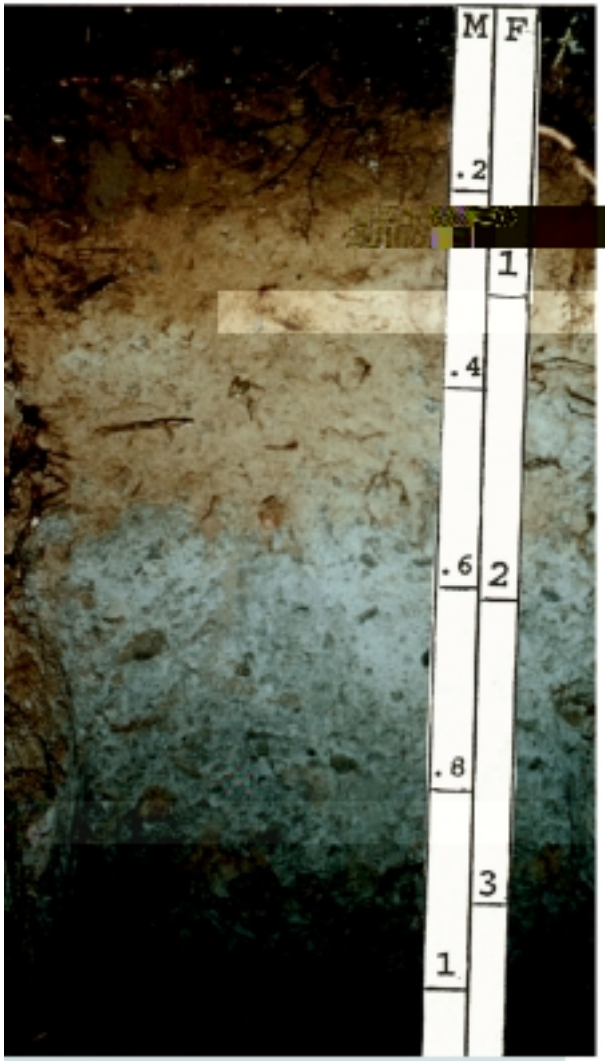




DOMINANT SUBORDERS

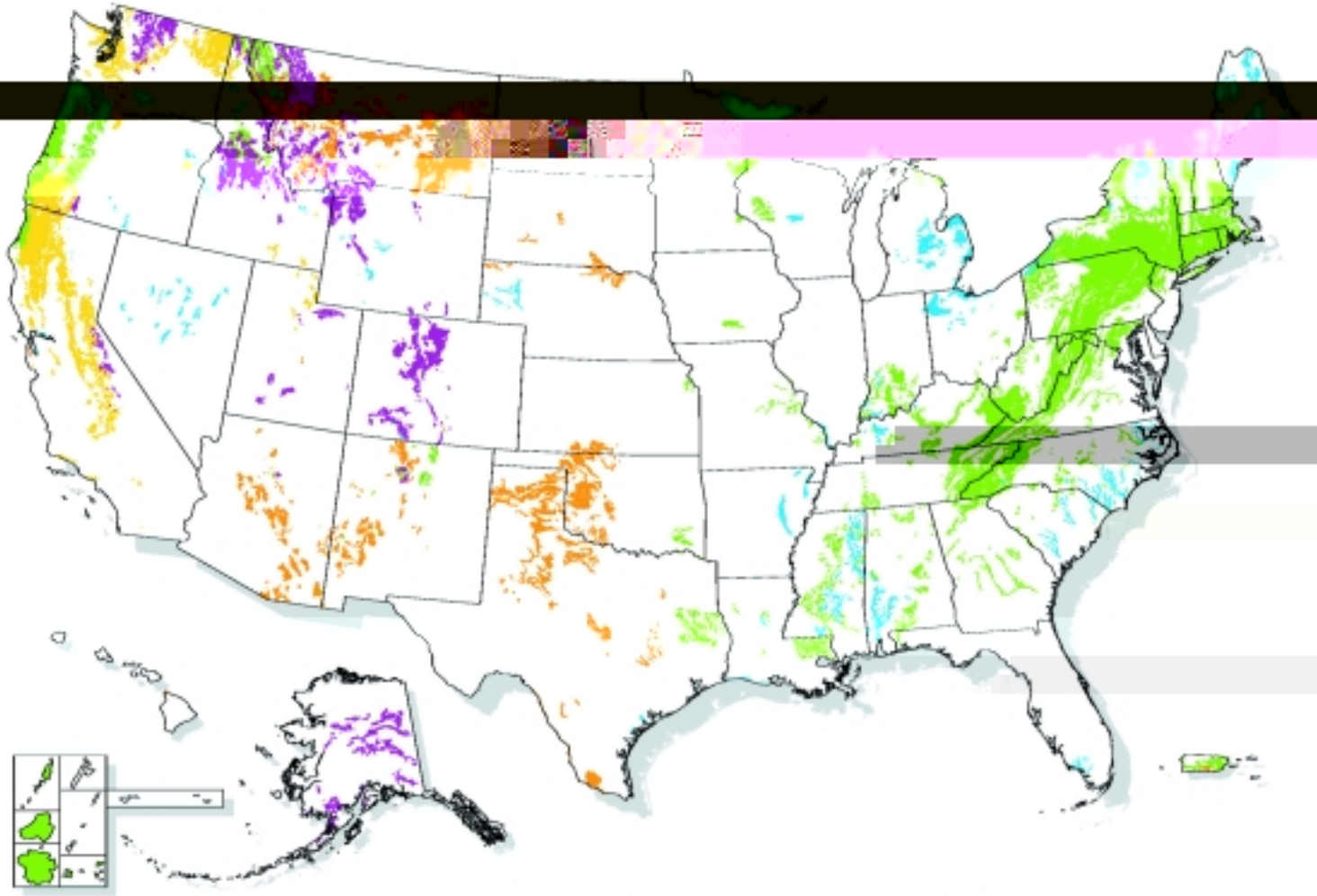
- Fibrists
- Saprists
- Folists
- Hemists

Histosols are dominated by organic soil materials. They are mostly soils commonly called bogs, moors, peats, or mucks. Some consist of a thin layer of organic materials over a root-limiting layer or fragmental materials.



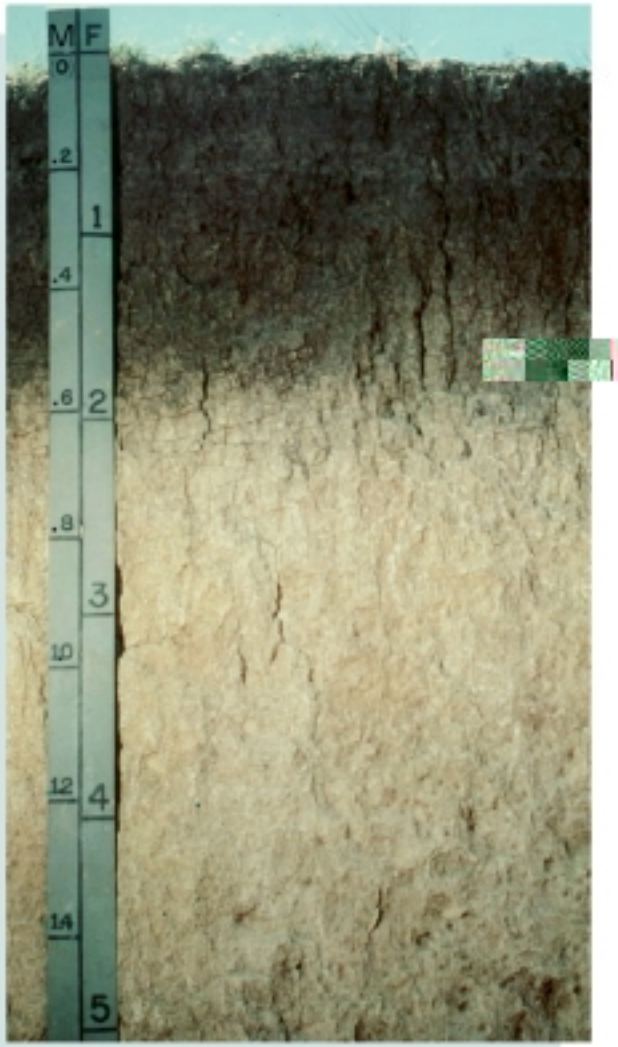
Inceptisols have many kinds of diagnostic horizons but cannot have an argillic, kandic, natric, oxic, or spodic horizon. They commonly have a cambic horizon and an ochric or umbric epipedon.

INCEPTISOLS

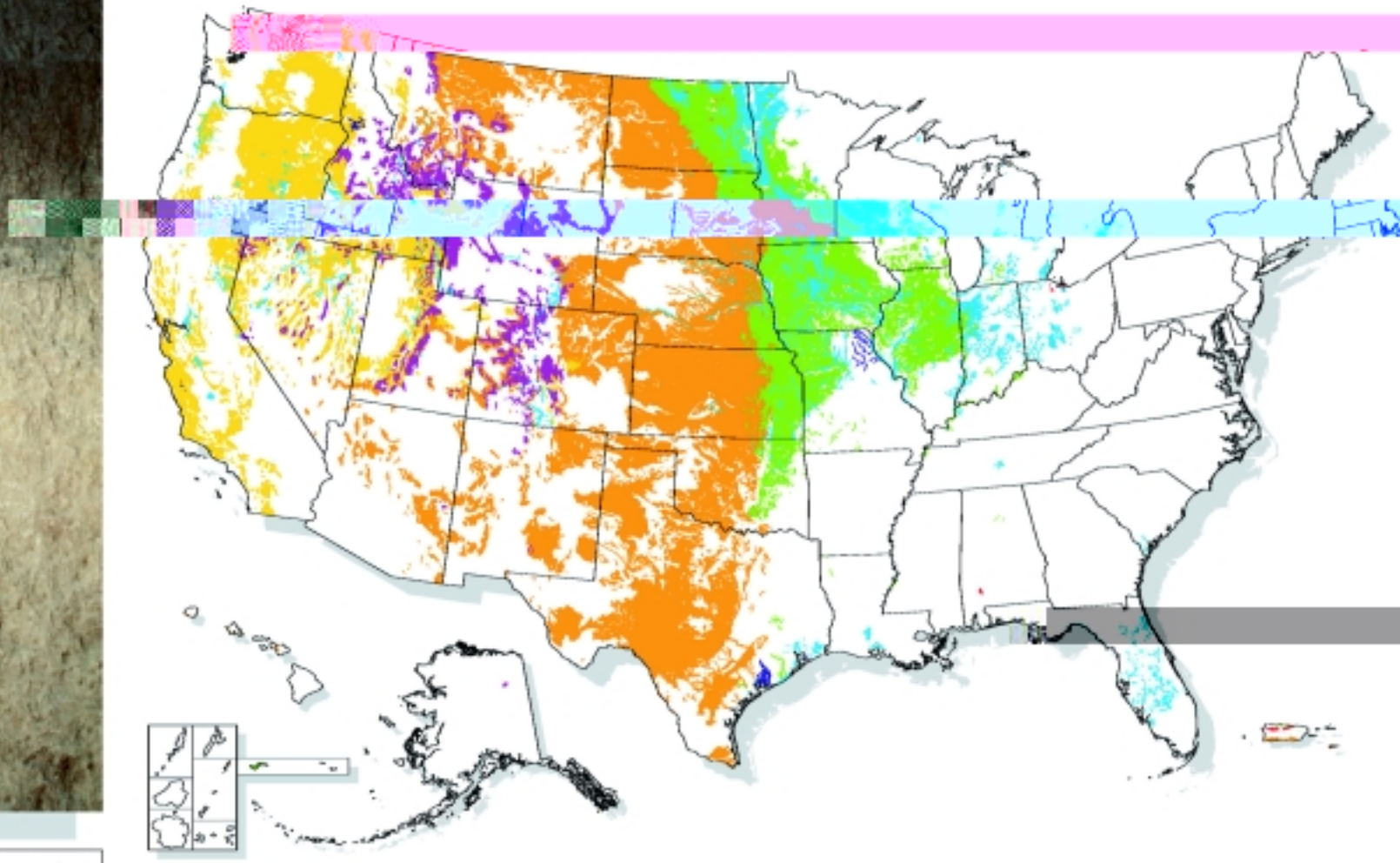


DOMINANT SUBORDERS

- Anthrepts
- Aquepts
- Cryepts
- Udepts
- Ustepts
- Xerepts



MOLLISOLS

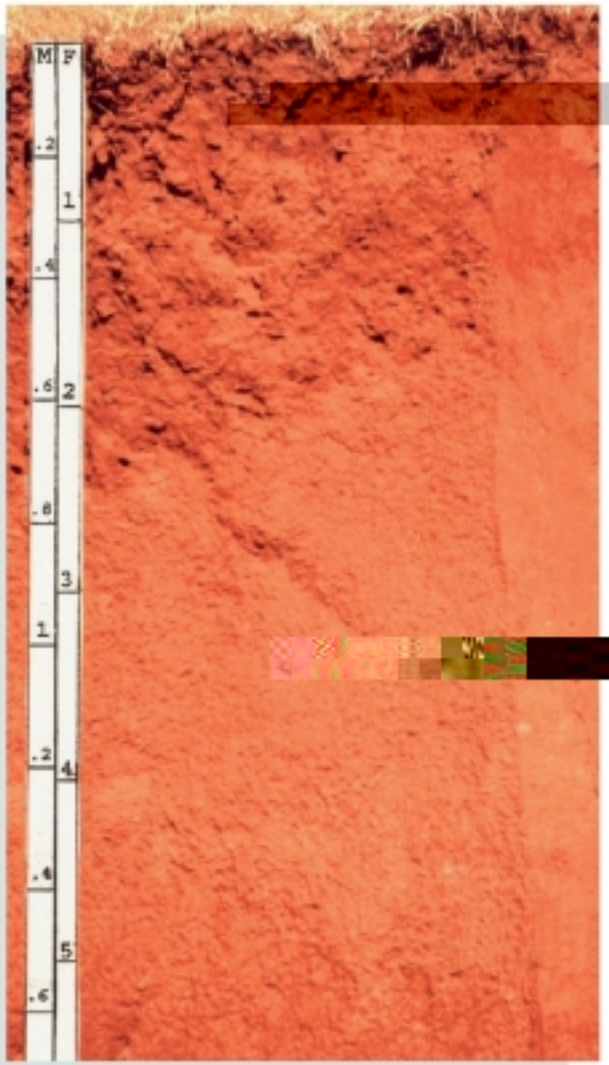


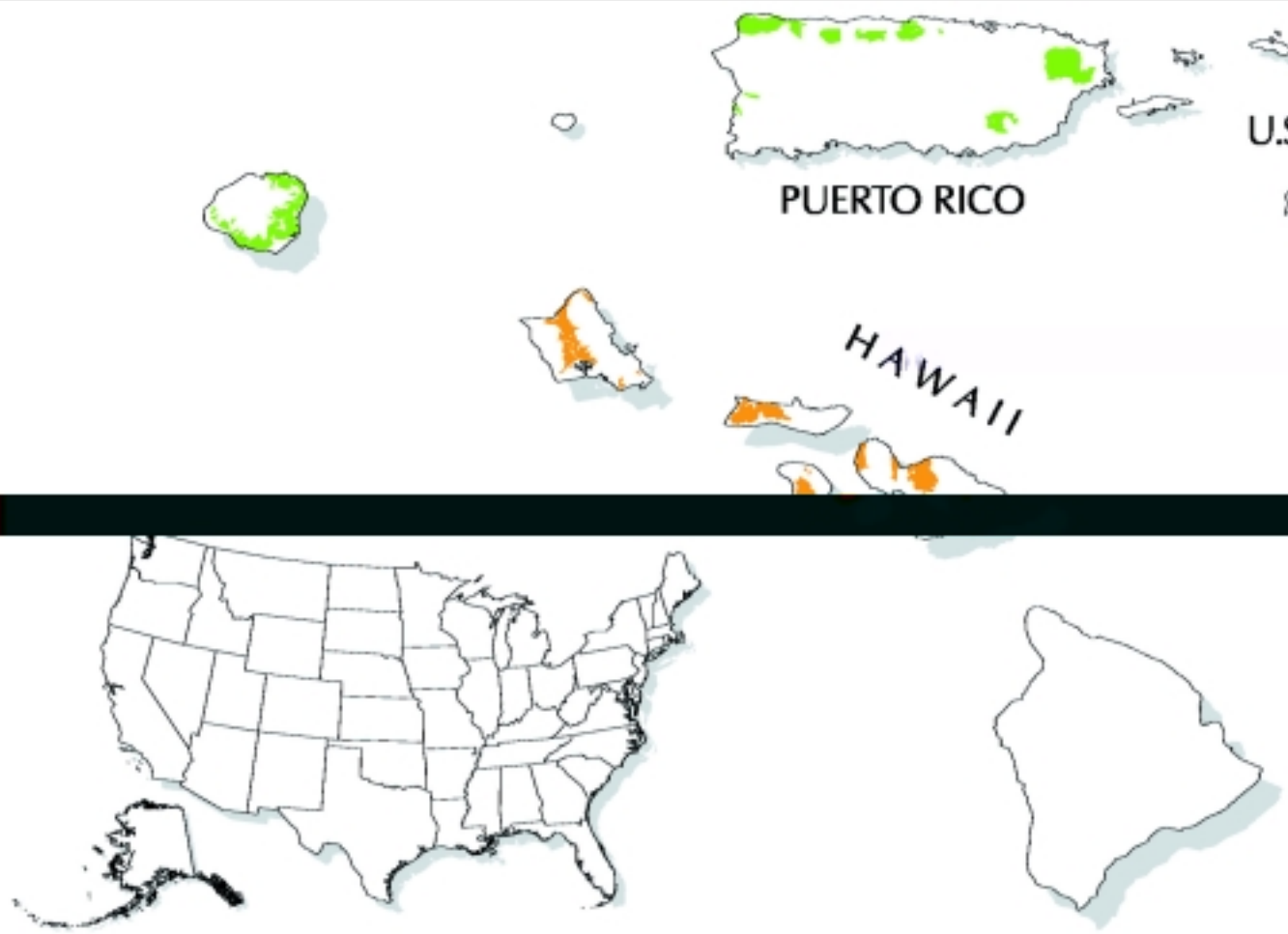
DOMINANT SUBORDERS

- Albolls
- Rendolls
- Xerolls
- Aquolls
- Udolls
- Cryolls
- Ustolls

Mollisols have a mollic epipedon and a relatively high content of bases. Many also have an argillic, natric, or calcic horizon. Some have a duripan or a petrocalcic horizon. Most formed under grass or savanna vegetation.

OXISOLS



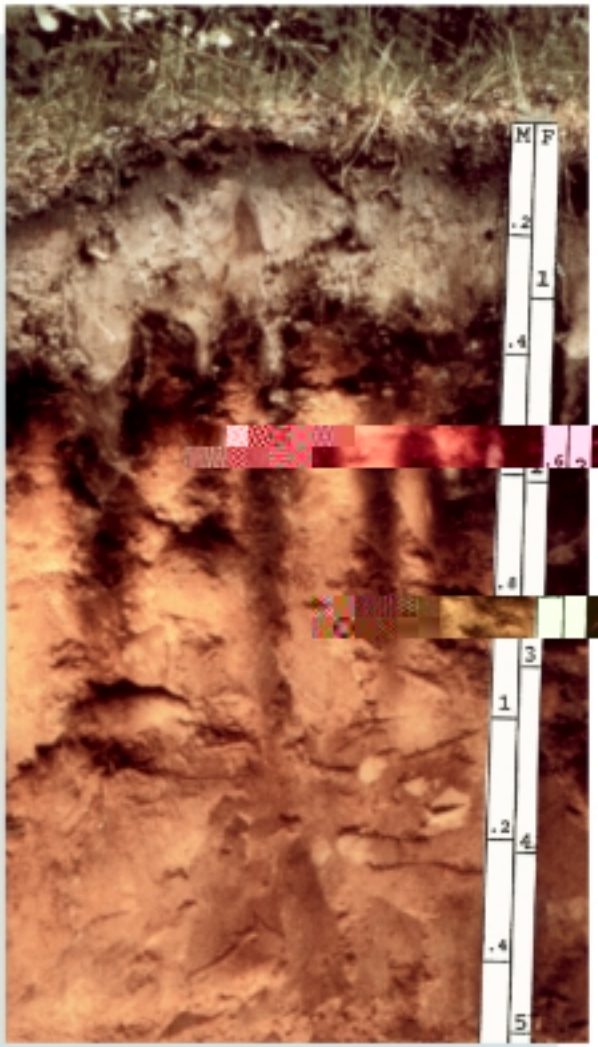


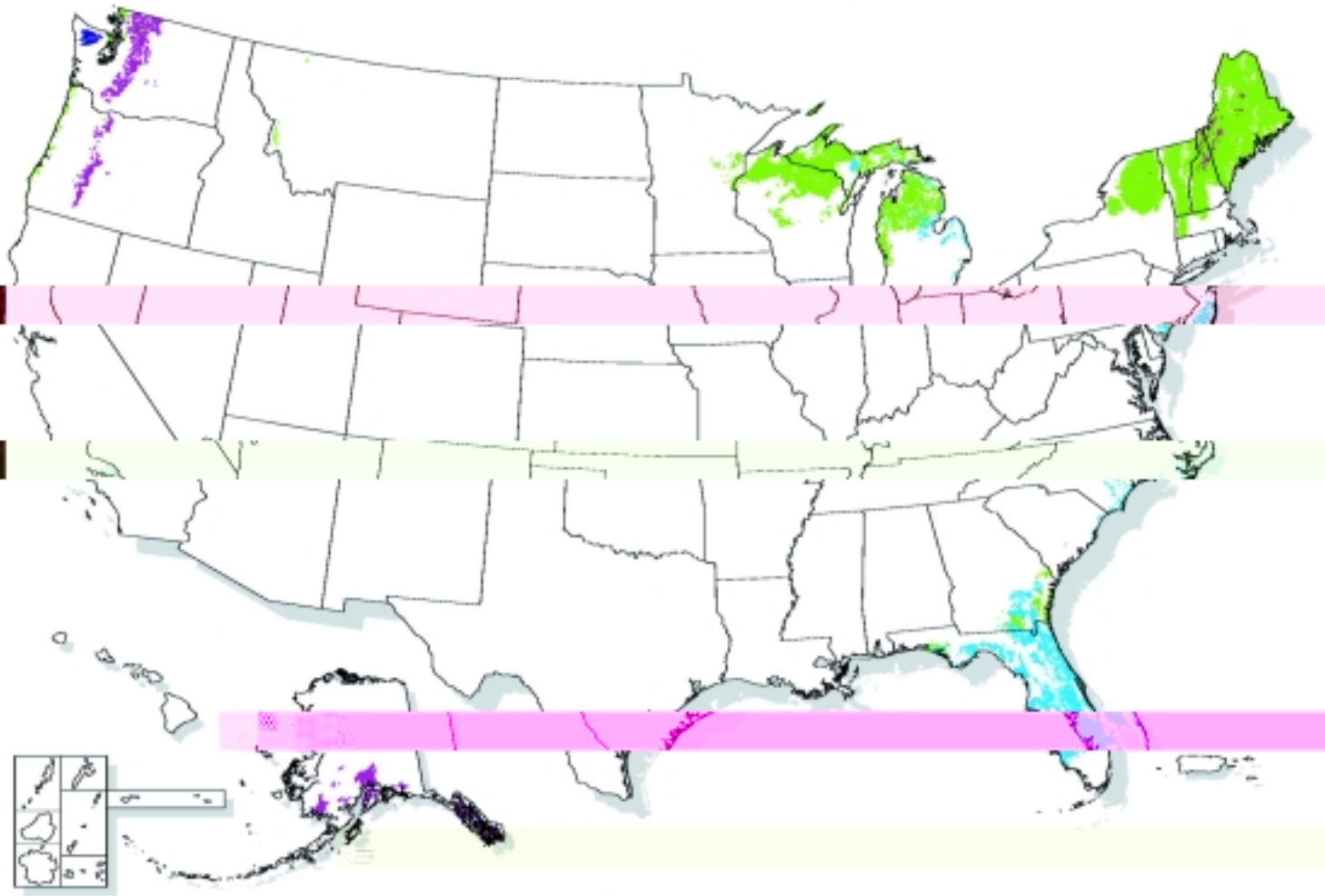
Oxisols have a clay fraction with a low cation-exchange capacity and have very few weatherable minerals. They have an oxic or kandic horizon and commonly have an ochric epipedon. Most formed under tropical forest vegetation.

DOMINANT SUBORDERS

- Aquox
- Udox
- Perox
- Ustox
- Torrox

SPODOSOLS



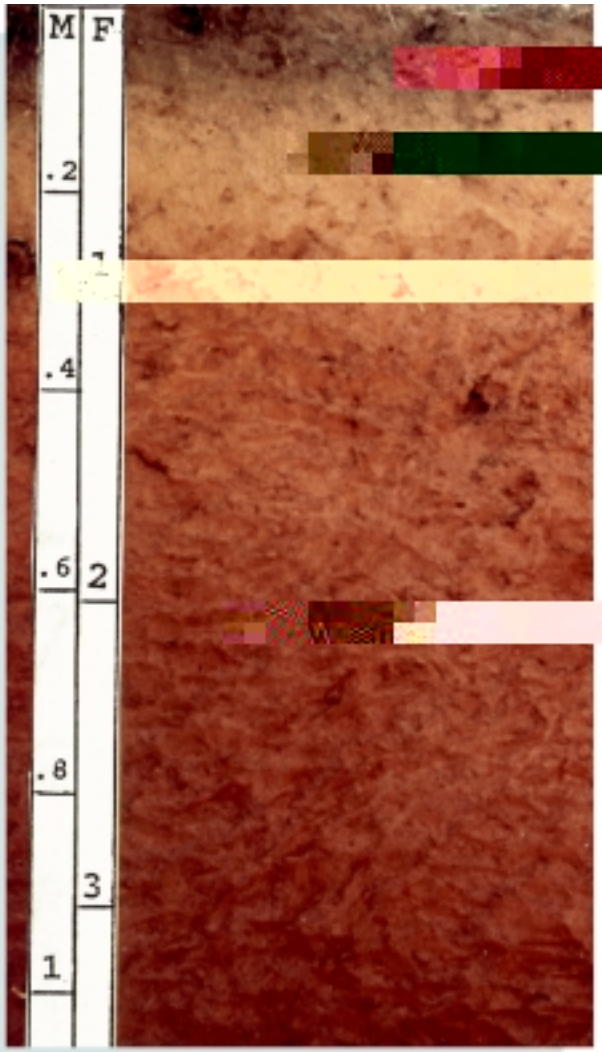


DOMINANT SUBORDERS

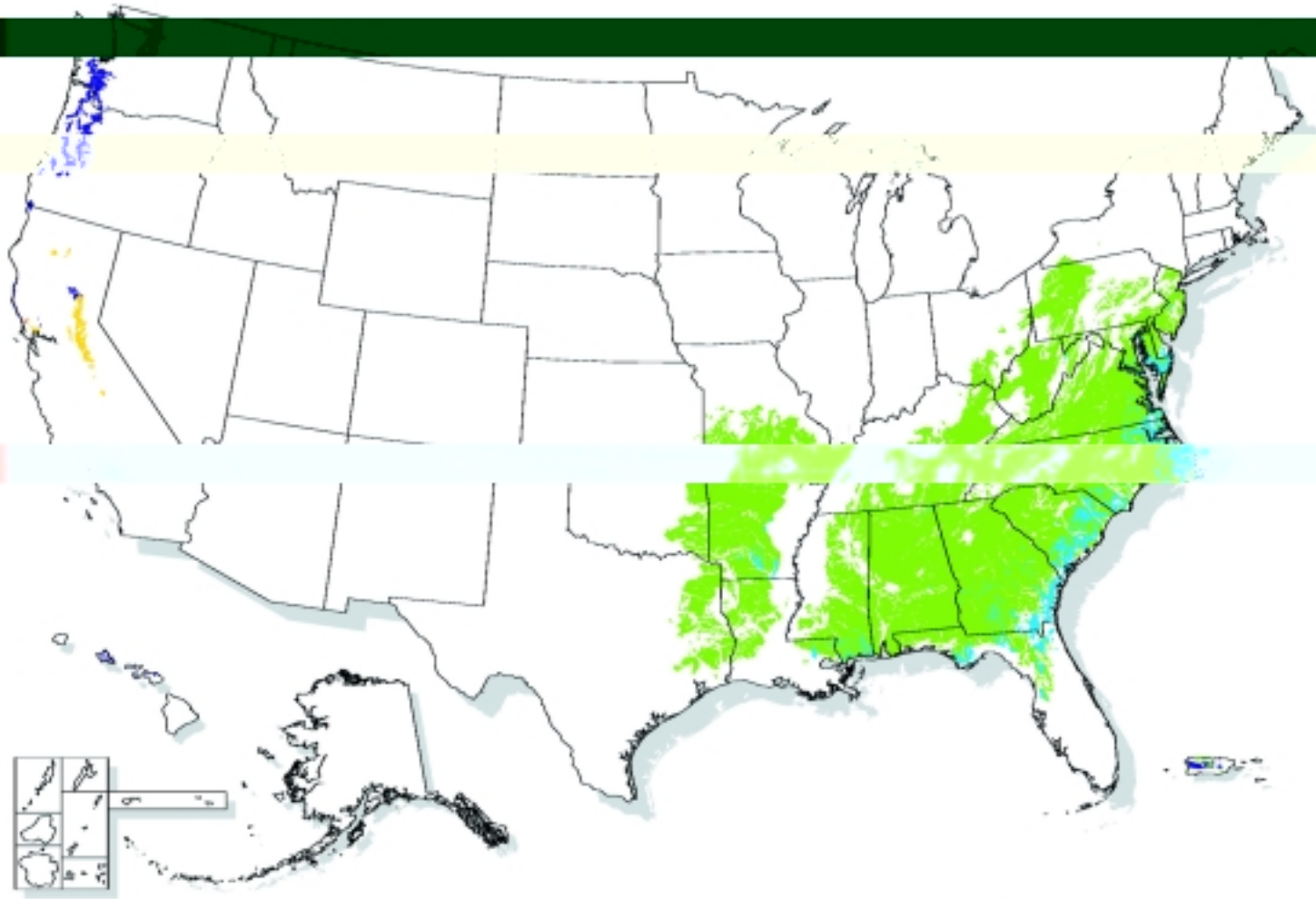
- Aquods
- Orthods
- Cryods
- Humods

Spodosols have a spodic horizon and commonly an albic horizon and an ochric epipedon. Most formed under forest vegetation. Dominant processes are weathering and translocation of minerals. The colloidal fraction is dominated by Al-humus complexes and short-range-order minerals.

ULTISOLS



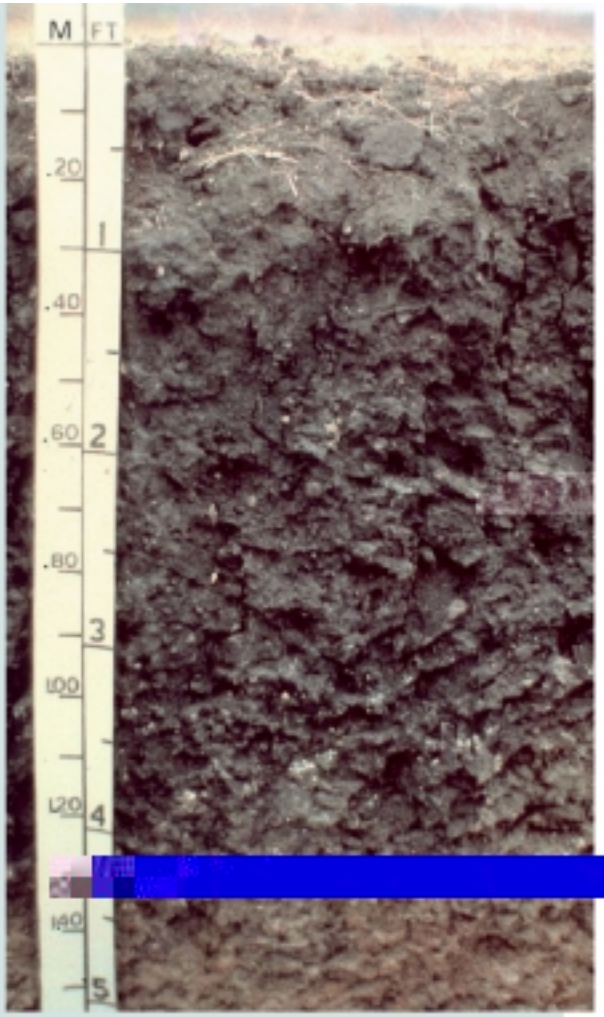
Ultisols have an argillic or kandic horizon and a relatively low content of bases. They typically have an ochric epipdon. Some also have a fragipan. Most formed under forest vegetation.

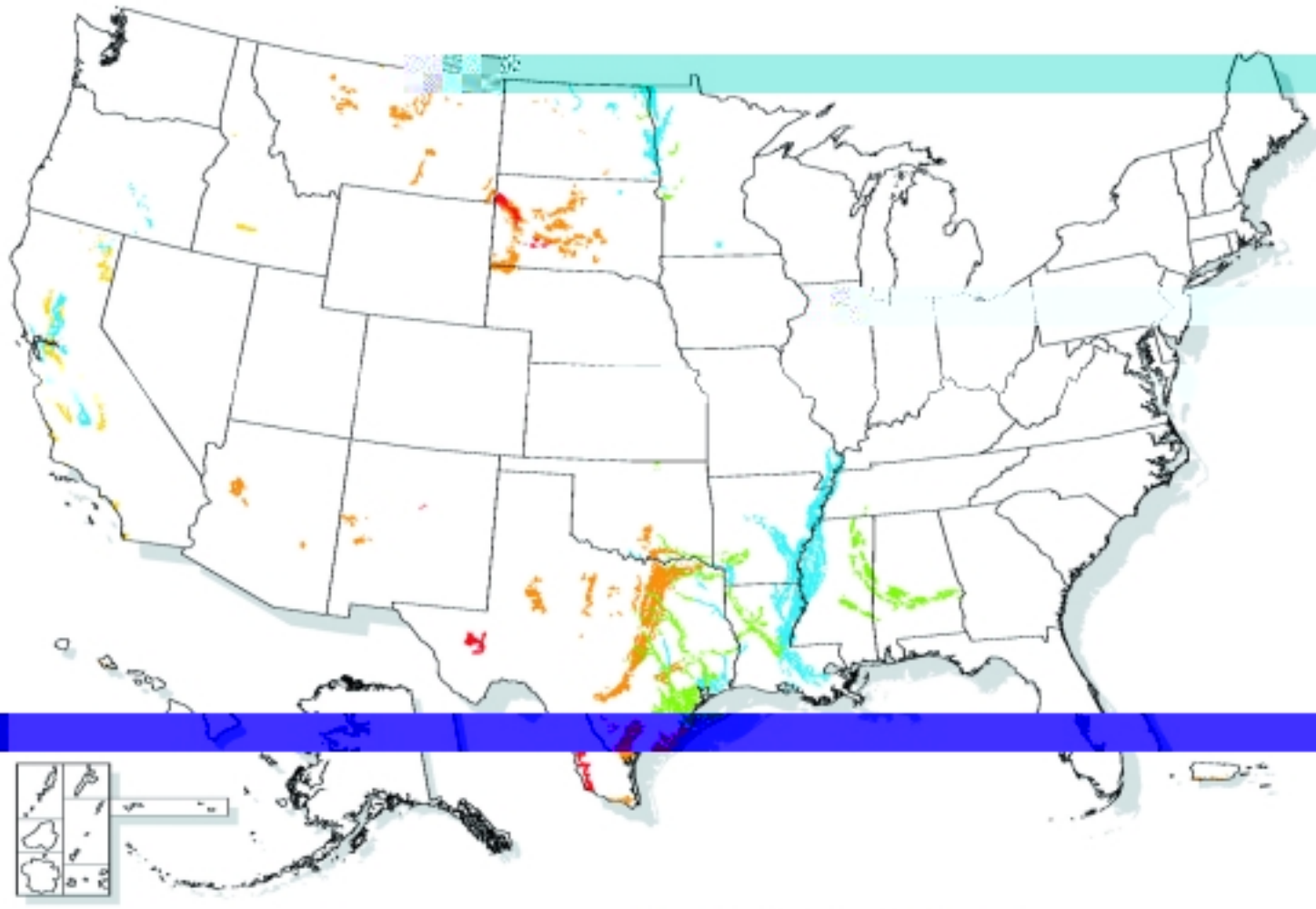


DOMINANT SUBORDERS

- Aquults
- Ustults
- Humults
- Xerults
- Udults

VERTISOLS





Vertisols are high in expanding clays that shrink when the soils become dry and swell when they become moist. Vertisols commonly have slickensides and develop deep, wide cracks when dry.

DOMINANT SUBORDERS

- Aquerts
- Cryerts
- Torrerts
- Uderts
- Usterts
- Xererts